



South Coast Air Quality Management District

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Draft Health Risk Assessment (HRA) for the DEIR for the Proposed Sycamore Canyon Business Park Buildings 1 and 2 Project

The South Coast Air Quality Management District (SCAQMD) staff appreciates the opportunity to comment on the draft HRA, which was prepared in response to SCAQMD staff comments (dated October 5, 2016¹). SCAQMD staff reviewed the draft HRA and have concerns that the assumptions used in the analysis have resulted in an under-estimation of the estimated health risks. The following comments are meant as guidance on the HRA for the lead agency and the SCAQMD staff recommends incorporating these comments into the revised HRA and in the Final EIR.

The SCAQMD staff is concerned that the draft HRA has underestimated the cancer risk from the proposed project. These comments on the draft HRA were discussed with City of Riverside planning staff and the CEQA and HRA consultants to the City in a meeting with SCAQMD staff on December 22, 2016. In the draft HRA, the lead agency used the AERMOD dispersion model to estimate diesel particulate matter (DPM) concentrations from the diesel vehicles generated by the proposed project and used the 2015 revised OEHHA guidelines to estimate the health risks to both residents and workers in the project vicinity. The 2015 revised OEHHA guidelines have been incorporated into SCAQMD health risk assessment procedures for Rules 1401, 1401.1, and 212² and are used by SCAQMD for projects where SCAQMD is the CEQA lead agency. SCAQMD staff recommends the lead agency revise the draft HRA based on the following comments:

1. In the draft HRA, the lead agency used the mean breathing rates to calculate a weighted average breathing rate. Consistent with SCAQMD's Risk Assessment Procedures³, SCAQMD staff recommends the lead agency use the 95th percentile breathing rates and the other parameters such as fraction of time at home, exposure frequency, and age specific factor, which can be found on Table 9.1 of SCAQMD Risk Assessment Procedures, Attachment M⁴.
2. In the draft HRA, the lead agency averaged the DPM emissions from trucks for the 30-years of exposure and used that emission rate to estimate the health risks. This is not an appropriate methodology to estimate emissions using the 2015 revised OEHHA guidelines. The 2015 revised OEHHA guidelines acknowledge that children are more susceptible to the exposure to air toxics and have revised the way cancer risks are estimated to take this into account. Since the emissions from the project generated trucks get cleaner with time due to existing regulations, it would not be

¹ Available online at <http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2016/october/deirsycamore.pdf>

² Risk Assessment Procedures can be found online at <http://www.aqmd.gov/home/permits/risk-assessment>

³ Available online at <http://www.aqmd.gov/docs/default-source/planning/risk-assessment/riskassprocjune15.pdf>

⁴ Available online at <http://www.aqmd.gov/docs/default-source/permitting/attachment-m.pdf>

appropriate to average out the emissions over the 30-year exposure duration since this would underestimate the health risks to children who would be exposed to higher DPM concentrations during the early years of project operation. Therefore, SCAQMD staff recommends that the DPM emissions for each year of operation be applied to each of the corresponding age bins (i.e. emissions from Year 1 of project operation should be used to estimate cancer risks to the third trimester to 0 year age bin; Year 1 and 2 of project operation should be used to estimate the cancer risks to the 0 to 2 years age bins; and so on).

3. In the draft HRA, the lead agency only included 5 minutes of idling for each truck at the loading docks. However, SCAQMD staff recommends 15 minutes of idling be included in the HRA. This was included as Comment #5 on our previous comment letter⁵ (dated October 5, 2016). The draft HRA should be revised to include 15 minutes of idling.
4. In the draft HRA, the lead agency used discrete receptors placed at the residential structures to estimate the cancer risks. SCAQMD staff recommends that the lead agency revise the HRA using a receptor grid of no more than 100-meter spacing over the existing residences and areas zoned or planned for residential development. Furthermore, receptor locations should be placed at the boundaries of the residential property and not the residential structure. Placing receptors on the residential structure underestimates cancer risks to the residents. At the December 22nd meeting, it was agreed that since the residential properties directly adjacent to the proposed project were of a higher elevation, the sloped area within the property boundary would not be representative of residential risk since the residents would not have access to that area. Therefore, for the proposed project, it would be appropriate to place the receptors and receptor grid along the physical fenceline of the residential properties closest to the proposed project (i.e. to include the backyard areas).
5. SCAQMD staff recommends following the U.S. EPA's haul road methodology when modeling the on-site and off-site truck movement.

Based on the December 22nd meeting, the City's HRA consultant noted that they will be revising the HRA to incorporate all the recommendations detailed here. If the health risks in the revised HRA exceed the SCAQMD's CEQA significance thresholds, the increase in health risk can be reduced by accelerating the introduction of cleaner trucks through a project requirement that all heavy duty trucks generated by the project will be required to meet or exceed the U.S. EPA's 2010 heavy duty engine emission standards or be powered by natural gas, electricity, or other diesel alternative. SCAQMD staff looks forward to reviewing the revised HRA and continuing to work with the City's planning staff. Please contact me at (909) 396-3176, if you have any questions regarding these comments.

Sincerely,



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⁵ Available online at <http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2016/october/deirsycamore.pdf>